

Reduction of Gadolinium, Dysprosium, Holmium,  
and Erbium in a Dropping Mercurial ~~Electrode~~  
Electrode, by Akio Iwase, *15 p*

JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXI,  
1960, pp 1266-1271. *9212653 - sent on disk*

*2/* AEC - SCL-T-497

Sci - Met-Mat

May-63

Takimoto, Masayoshi and Hirano, Hiroko.  
A NEW COLORIMETRIC DETERMINATION METHOD  
FOR THIOUREA AND AMMONIUM THIOCYANATE.  
Rept. 4 of Studies on Separation and Determination  
Methods for Cyanamide Derivatives. [1961] 12p. 8 refs.  
Order from SLA \$1.60 61-10829

Trans. of Nihon Kagaku Zasshi (Japan) 1960, v. 81,  
no. 9, p. 1414-1418.

DESCRIPTORS: \*Thiourea, \*Thiocyanates, Ammonium  
radicals, \*Cyanamides, Separation, Determination,  
\*Colorimetric analysis.

(Chemistry--Analytical, TT, v. 6, no. 1)

61-10829

I. Takimoto, M.  
II. Hirano, H.  
III. Title: Studies...

161609

Office of Technical Services

61-10828

[Takimoto, Masayoshi and Hirano, Hiroko].  
A NEW COLORIMETRIC DETERMINATION METHOD  
FOR UREA. Rept. 5 of Studies on Separation and  
Determination Methods for Cyanamide Derivatives.  
[1961] 12p. 6 refs.  
Order from SLA \$1.60

61-10828

Trans. of Nihon Kagaku Zasshi (Japan) 1960, v. 81,  
no. 9, p. 1418-1421.

DESCRIPTORS: \*Colorimetric analysis, \*Urea,  
Determination, Cyanamide, Separation.

I. Takimoto, M.  
II. Hirano, H.  
III. Title: Studies...

161608

Office of Technical Services

(Chemistry--Analytical, TT, v. 6, no. 1)

Agency: Bureau of Mines

13

P.O. No. P3120061

July 8, 1971

R-13471-8

Title: Inductive effect of polar substituents on carbon-hydrogen stretching vibrations of aliphatic hydrocarbons.

Authors: Rempei Gotoh and Tohru Takenaka.

Source: Nippon Kagaku Zasshi, v. 81, no. 10, 1960, pp. 1504-9.

Language: Japanese

Instructions: Please translate.

70-13446-07C

Ishii, S.

SAKAGUCHI REACTION OF ARGININE-CONTAINING  
PEPTIDES. Nihon Kagaku Zasshi, v. 81, p. 1586-1589,  
1960.

Order from NTC as 70-13446-07C: HC \$ 6.70, MF \$ 5.80.

62-10625

Yuasa, Toshimi.  
GAS IONS, FOR EXAMPLE, OF SEMICONDUCTORS,  
SEMIMETALS AND METALS . Pt. 1 of A Research  
on Gas Ions by a Quantum Analyzer. [1961] [6]p.  
11 refs.

Order from SLA \$1.10 62-10625.

Trans. of [Nihon Kagaku Zasshi] (Japan) 1960, v. 81,  
p. 1643-1645.

DESCRIPTORS: \*Gases, \*Ions, \*Ion sources, Semi-  
conductors, Metals, Electrodes, Atoms, Molecules,  
Polymers, Spectrographic analysis.

A Mattauch type double focussing quantum analyzer was  
used. Some poly-atomic molecular ions were produced  
by high frequency sparks between the two specimen  
electrodes which were made of the object elements.  
Semiconductors such as carbon, silicon, germanium,  
selenium and tellurium and semimetals such as anti-  
(Chemistry--Analytical, TT, v. 7, no. 12) (over)

- I. Title: Semimetals
- II. Yuasa, T.
- II. Title: Research. . .

Office of Technical Services

61-22355

Kyogoku, Yoshimasa.

NORMAL VIBRATIONS OF ICE AND HEAVY ICE, tr.  
by H. Chihara. 1961, 15p. 10 refs. NRCC Technical  
Trans. 959.

Order from NRCC \$1.50

NRCC C-3634

Trans. of [Nihon Kagaku Zasshi] (Japan) 1960, v. 81,  
no. 11, p. 1648-1652.

DESCRIPTORS: \*Ice, Chemical bonds, \*Vibration,  
Water, Molecular rotation.

I. Kyogoku, Y.

II. NRCC TT-959

III. NRCC C-3634

IV. National Research Council  
of Canada

180532

Office of Technical Services

(Earth Sciences--Frost, TT, v. 6, no. 5)

Matsuura, Ryo.

REDUCTION REACTION OF VANADIUM PENTOXIDE BY HYDROGEN (REDUCTION OF VANADIUM PENTOXIDE BY A STATIC METHOD). Rept. no. 1 of Studies on Vanadium Pentoxide Catalysts. [1962] 13p. 13 refs.

Order from SLA \$1.60

62-10696

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82, no. 3, p. 276-281.

DESCRIPTORS: \*Vanadium catalysts, Vanadium compounds, Oxides, Reduction, Hydrogen, Reaction kinetics.

Using a static method, the velocity of the reduction reaction of vanadium pentoxide by hydrogen was measured across a hydrogen pressure range of 50 ~ 250 mmHg. It was found as a result that this is a (Chemistry--Physical, TT, v. 9, no. 3) (over)

62-10696

I. Matsuura, R.

II. Title: Studies ...

Office of Technical Services

62-10697

Matsuura, Ryo.  
OXIDATION REACTION OF VANADIUM TRIOXIDE  
(BY OXYGEN). Rept. no. 2 of Studies on Vanadium  
Pentoxide Catalysts. [1962] 12p. 4 refs.  
Order from SLA \$1.60

62-10697

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 3, p. 281-285.

DESCRIPTORS: \*Vanadium catalysts, Vanadium com-  
pounds, Oxides, Oxidation, Oxygen, Ions, Reaction  
kinetics, Thin films, Temperature, Pressure, Potas-  
sium compounds, Sulfates.

The oxidation velocity of vanadium trioxide formed by  
the hydrogen-reduction of vanadium pentoxide was mea-  
sured at oxygen pressures of 60~250 mmHg and  
temperatures of 250<sup>o</sup>~350<sup>o</sup>C and it was seen that the  
reaction consisted of a rapidly progressing reaction in  
(Chemistry--Physical, TT, v. 9, no. 3) (over)

I. Matsuura, R.  
II. Title: Studies ...

Office of Technical Services

Seiyama, Tetsuro, Suenaga, Akio, and Sakai, Wataru.  
THERMODYNAMIC CONSIDERATIONS ON THE CATALYTIC OXIDATION REACTIONS OF CARBON MONOXIDE AND SULFUR DIOXIDE. [1962] 20p. 13 refs.  
Order from SLA \$1.60 62-14964

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 3, p. 292-298.

DESCRIPTORS: \*Carbon compounds, \*Monoxides,  
\*Sulfur compounds, \*Dioxides, Oxidation, \*Catalysts,  
\*Semiconductors, \*Thermodynamics, Reaction kinetics.

With respect to the oxidation reaction of carbon monoxide, the order of activities of various types of oxide catalysts was evaluated from the thermodynamic properties of the catalysts. Similar considerations were made on the oxidation of sulfur dioxide, but in this instance, simple application of the thermodynamic values of the oxide catalysts did not agree with the actual state (Chemistry--Physical, TT, v. 9, no. 5) (over)

62-14964

I. Seiyama, T.  
II. Suenaga, A.  
III. Sakai, W.

Office of Technical Services

Shirai, Hideko.  
THE REDUCTION WAVES OF NICKEL IONS IN  
SEVERAL SUPPORTING ELECTROLYTES. Report  
No. 7 of Studies on the Alternating-Current Polaro-  
graphy. 7p. Srefa.  
Order from TLA \$1.10      TT-64-16374

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82  
[no. 3] p. 339-343.

TT-64-16374

I. Shirai, H.  
II. Title: Studies...

(Chemistry--Physical, TT, v. 12, no. 4)

Office of Technical Services

Condensation Products of Furfuryl Alcohol (VII)<sup>1</sup>  
-- Infrared Absorption Spectra of Furan Deri-  
vatives, by K. Takano.  
JAPANESE, per. Nippon Kagaku Zasshi, No 82, 1961,  
pp 373-376.  
P911017868  
AEC-1A-Tr-67-107

Sci-Chem  
Mar 68

349,340

Imoto, T., Ota, T. and Matsubara, T.  
POLYMERIZATION OF ALDEHYDES. Pt. 2. HIGH-  
PRESSURE POLYMERIZATION OF CROTONALDEHYDE  
[1963] 9p.  
Order from ATS \$9.50

ATS-63Q69J

Trans. of [Nihon] Kagaku Zasshi (Japan) 1961, v. 82,  
no. 3, p. 378-381.

DESCRIPTORS: \*Acetyl plastics, \*Aldehydes,  
Polymerization.

(Materials--Plastics, TIT, v. 10, no. 8)

63-22157

- I. Title: Crotonaldehyde
- I. Imoto, T.
- II. Ota, T.
- III. Matsubara, T.
- IV. ATS-63Q69J
- V. Associated Technical  
Services, Inc.,  
East Orange, N. J.
- VI. Title: High-pressure ...

Office of Technical Services

Matsuura, Ryo.

REDUCTION REACTION OF SPHERICAL VANADIUM  
PENTOXIDE GRAINS IN HYDROGEN STREAM. Rept.  
no. 3 of Studies on Vanadium Pentoxide Catalysts.  
[1962] 8p. 1 ref.

Order from SLA \$1.10

62-10693

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 4, p. 417-419.

DESCRIPTORS: \*Vanadium catalysts, Vanadium com-  
pounds, Oxides, Grains (Metallurgy), Hydrogen, Re-  
duction, Reaction kinetics, Thin films, Water,  
Diffusion.

Spherical vanadium pentoxide samples were prepared,  
and these were reduced by the normal-pressure flow-  
through method; the reduction velocity was determined  
from the amount of water formed. It was discovered as  
(Chemistry--Physical, TT, v. 9, no. 3) (over)

62-10693

I. Matsuura, R.  
II. Title: Studies ...

Office of Technical Services

62-10692

Matsuura, Ryo.  
CHANGE IN SURFACE AREA OF GRANULAR VANADIUM PENTOXIDE BY HYDROGEN-REDUCTION, AND MICROSCOPIC OBSERVATION OF THE REDUCTION PROCESS. Rept. no. 4 of Studies on Vanadium Pentoxide Catalysts. [1962] 6p. 1 ref.  
Order from SLA \$1.10

I. Matsuura, R.  
II. Title: Studies ...

62-10692

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82, no. 4, p. 419-421.

DESCRIPTORS: \*Vanadium catalysts, Vanadium compounds, Oxides, Hydrogen, Reduction, Grains (Metallurgy), Surface area, Microstructure.

Using the granular vanadium pentoxide described in the Third report as the sample (See 62-10693), its surface area changes during hydrogen-reduction were traced by the BET method; and from the relationship between the (Chemistry--Physical, TT, v. 9, no. 3) (over)

Office of Technical Services

62-10694

Matsuura, Ryo.  
HYDROGEN-REDUCTION REACTION OF VANADIUM  
PENTOXIDE GRANULES CONTAINING VARYING  
AMOUNTS OF MOLYBDENUM TRIOXIDE. Rept. no. 5  
of Studies on Vanadium Pentoxide Catalysts. [1962] 7p.  
5 refs.

Order from SLA \$1.10

62-10694

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 4, p. 421-423.

DESCRIPTORS: \*Vanadium catalysts, Vanadium com-  
pounds, \*Oxides, Hydrogen, Reduction, Grains  
(Metallurgy), \*Molybdenum compounds, Eutectics,  
Reaction kinetics.

Granular vanadium pentoxide catalysts containing vary-  
ing amounts of molybdenum trioxide were made by the  
same method as in the Third report (available in trans-  
(Chemistry--Physical, TT, v. 9, no. 1) (over)

I. Matsuura, R.  
II. Title: Studies ...

Office of Technical Services

Tarama, Kimio, Teranishi, Shiichiro, and  
Yasui, Teruo.  
RATE OF REDUCTION OF VANADIUM PENTOXIDE  
CATALYSTS BY HYDROGEN. [1962] [13]p. 7 refs.  
Order from SLA \$1.60 62-14963

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 4, p. 438-441.

DESCRIPTORS: \*Catalysts, Oxides, \*Vanadium com-  
pounds, Hydrogen, Reduction, Velocity, \*Vanadium  
catalysts, Crystals, Lattices.

The apparent heat of activation of reduction of vanadium (V) oxide catalysts alone by hydrogen did not change depending on the manner of preparation of the sample, and a value of 19~21 kcal/mol was presented. But the velocity of reduction of vanadium (V) oxide was influenced by the manner of preparation of the catalyst, and it was discovered that the more the (Chemistry--Physical, TT, v. 8, no. 7) (over)

62-14963

- I. Tarama, K.
- II. Teranishi, S.
- III. Yasui, T.

Office of Technical Services

Yamaguchi, H.  
THE SYNTHESIS OF N-SUBSTITUTED SULFAMATES  
BY THE USE OF AMMONIUM IMIDODISULFONATE.  
Pt. 1 of N-Sulfonation of Amines. [1961] 8p.  
Order from ATS \$13.30 ATS-14N53]

Trans. of [Nihon] Kagaku Zasshi (Japan) 1961, v. 82,  
no. 4, p. 483-486.

DESCRIPTORS: \*Sulfamates, Synthesis, \*Ammonium  
radicals, \*Sulfonates, Chemical reactions, \*Amines.

JJ 3282

(Chemistry--Organic, TT, v. 6, no. 8)

61-25327

I. Yamaguchi, H.  
II. Title: N-Sulfonation...  
III. ATS-14N53]  
IV. Associated Technical  
Services, Inc., East  
Orange, N. J.

185226

Office of Technical Services

Yamaguchi, H.  
DETERMINATION OF THE CONSTITUENTS OF THE  
REACTION PRODUCTS. Pt. 2 of N-Sulfonation of  
Amines. [1961] 9p.  
Order from ATS \$13.50

ATS-15N53J

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 4, p. 486-490.

DESCRIPTORS: \*Sulfonation, Chemical reactions,  
\*Amines, Sulfimides.

(Chemistry--Organic, TT, v. 6, no. 7)

61-25042

I. Yamaguchi, H.  
II. Title: N-Sulfonation ...  
III. ATS-15N53J  
IV. Associated Technical  
Services, Inc., East  
Orange, N. J.

1515 0

Office of Technical Services

Shimura, Hiroshi.  
STUDIES ON O-NITROSOPHENOLS AND THEIR  
METAL COMPLEXES. REPT. 3. POLAROGRAPHY,  
ABSORPTION SPECTROSCOPY AND STABILITIES OF  
SUBSTITUTED O-NITROSOPHENOLS AND THEIR  
METAL COMPLEXES. 9p 14refs.  
Order from SLA \$1.10      TT-64-16373

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82  
[no. 6] p. 641-644.

(Chemistry--Organic, TT, v. 12, no. 4)

TT-64-16373

I. Shimura, H.  
II. Title: Polarography...

Office of Technical Services

63-18810

Nosaki, Ryo, Hori, Fumiaki, and Kurihara, Kanjin.  
METHOD OF PHOTOMETRIC DETERMINATION OF  
OXALIC ACID AND CALCIUM BY USING ULTRA-  
VIOLET ABSORPTION OF IRON OXALATES (III) COM-  
PLEX BODY. [1963] 6p. (figs. tables omitted) 3 refs.  
Order from SLA \$1.10 63-18810

I. Nosaki, R.  
II. Hori, F.  
III. Kurihara, K.

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 6, p. 713-715.

DESCRIPTORS: \*Oxalic acids, \*Calcium, \*Iron com-  
pounds, Oxalates, \*Complex compounds, \*Perchlorates,  
\*Ultraviolet spectroscopy, Chlorine, Sulfuric acid,  
Acetic acids, Tartrates, Citric acids.

A method for the photometric determination of oxalic  
acid and calcium was tried by using the ultra-violet ray  
absorption of iron oxalates (III) complex body with the  
composition of 1 : 1. In a solution (whose pH is 0.87)  
(Chemistry--Analytical, TT, v. 10, no. 12) (over)

Office of Technical Services

Motoki, S.  
SYNTHESES OF  $\alpha$ -KETOGlutARIC ACID, SUC-  
CINIC SEMIALDEHYDE AND GLUTAMIC ACID. Pt. 6  
of the Studies of Syntheses Starting from Levulinic  
Acid. [1961] 6p.                      ATS-26N57]  
Order from ATS \$12.45

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 6, p. 740-743.

DESCRIPTORS: \*Glutaric acids, \*Glutamic acid,  
\*Succinates, Aldehydes, \*Valeric acids, Acids,  
Synthesis.

(Chemistry--Organic, TT, v. 7, no. 10)

62-12206

- I. Motoki, S.
- II. Title: Studies ...
- III. ATS-26N57]
- IV. Associated Technical  
Services, Inc., East  
Orange, N. J.

ATS JJ-4028

Office of Technical Services

62-18070

Liang, Mong-bau and Tsutsumi, Shigeru.  
REACTION OF CARBON MONOXIDE WITH PHENYL-  
LITHIUM. [1962] 9p. 5 refs.  
Order from SLA \$1.10

62-18070

Trans. of [Nihon Kagaku Zasshi] (Japan) 1961, v. 82,  
p. 880-882.

DESCRIPTORS: \*Chemical reactions, \*Carbon com-  
pounds, \*Monoxides, \*Phenyl radicals, \*Lithium com-  
pounds, \*Metalorganic compounds, Reaction kinetics.

The reaction of carbon monoxide with phenyllithium  
was carried out at -10°C and normal pressure for 40  
minutes. Among the reaction products, benzaldehyde,  
benzohydrol, triphenylmethane, benzophenone, ben-  
zoin, diphenylbenzoylmethane, p-hydroxytriphenyl-  
acetic acid and benzoic acid were isolated, among com-  
pounds related to carbon monoxide, and phenol,  
diphenyl and methylphenylcarbinol were obtained  
(Chemistry--Physical, TT, v. 8, no. 9) (over)

- I. Liang, Mong-bau
- II. Tsutsumi, S.

Office of Technical Services

Hagino, K.  
SPECTROPHOTOMETRIC DETERMINATION OF  
MINUTE AMOUNTS OF NITRATE ION. [1962] 9p.  
(8 figs. omitted) 3 refs.  
Order from SLA \$1.10

62-16517

Trans. of [Nihon] Kagaku Zasshi (Japan) [1961] v. 82,  
p. 841-845.

DESCRIPTORS: \*Spectrographic analysis, Color-  
imetric analysis, Ions, \*Nitrates, Ammonia, Zinc,  
Magnesium compounds.

The  $\text{NO}_2$  ion was prepared by reduction of  $\text{NO}_3$  with  
zinc in aqueous ammonia, and complexed for color-  
imetry by Griess-Romijn (GR) reagent. Aqueous  
ammonia and metallic zinc were added to the sample  
solution;  $\text{NO}_2$  was produced by shaking a constant num-  
ber of times. After centrifugal separation, HCl was  
added to the filtrate; neutralization was then effected  
(Chemistry--Analytical, TT, v. 8, no. 7) (over)

62-16517

1. Hagino, K.

Office of Technical Services

Kobashi, Yusuke.  
IDENTIFICATION OF PYRIDINE BASES AND NICOTINE  
BASES BY GAS CHROMATOGRAPHY. [1962] 12p.  
Order from K-H \$14.50 K-H-12240a.  
SLA 63-12911

Trans. of [Nihon] Kagaku Zasshi (Japan) 1961, v. 82,  
p. 1262-1265.

DESCRIPTORS: \*Gas chromatography, \*Nicotine,  
\*Pyridines, Identification.

(Chemistry--Analytical, TT, v. 10, no. 8)

63-12911

I. Kobashi, Y.  
II. K-H-12240a  
III. Kresge-Hooker Science  
Library Associates,  
Detroit, Mich.

SLA 63-12911

Office of Technical Services

Kobashi, Y. and Watanabe, M.  
QUANTITATIVE DETERMINATION OF PYRIDINE  
BASES AND NICOTINE BASES BY GAS CHROMA-  
TOGRAPHY. [1962] 9p.  
Order from K-H \$11.25

K-II-12240b

Trans. of [Nihon] Kagaku Zasshi (Japan) 1961, v. 82,  
p. 1265-1267.

DESCRIPTORS: \*Gas chromatography, \*Nicotine,  
\*Pyridines, Quantitative analysis.

(Chemistry--Analytical, TT, v. 10, no. 8)

63-12912

I. Kobashi, Y.  
II. Watanabe, W.  
III. K-H-12240b  
IV. Kresge-Hooker Science  
Library Associates,  
Detroit, Mich.

Office of Technical Services

62-10954

Inoue, Goro.

SYNTHESIS OF 3,5-DIACETYL-PYRIDINE. Rept. no. 4  
of [The Chemistry of] Methyl- $\beta$ -Chlorovinylketone.  
[1962] 6p. (formulae omitted) 10 refs.  
Order from SLA \$1.10

62-10954

Trans. of [Nihon] Kagaku Zasshi (Japan) 1961, v. 82,  
no. 9, p. 1272-1274.

DESCRIPTORS: Synthesis, \*Acetyl radicals, \*Pyridines,  
Methyl radicals, Vinyl chlorides, \*Ketones.

By a reaction of methyl- $\beta$ -aminovinylketone and formal-  
dehyde (obtained by the condensation of methyl- $\beta$ -chloro-  
vinylketone and ammonia), 1,4-dihydro-3,5-dia-  
cetylpyridine was obtained. By oxidizing this compound,  
3,5-diacetylpyridine was synthesized. By using  
acetaldehyde or benzaldehyde instead of formaldehyde,  
4-methyl-, 4-phenyl-3,5-diacetylpyridine were syn-  
(Chemistry--Organic, TT, v. 8, no. 7) (over)

I. Inoue, G.  
II. Title: Chemistry ...

Office of Technical Services

62-14826

Ryang, Moho, Miyamoto, En, and Tsutsumi, Shigeru.  
REACTION OF CARBON MONOXIDE AND SODIUM  
PHENOLATE Rept. no. 4 of Reaction of Carbon Monox-  
ide and Organic Metallic Compounds. [1962] 10p.  
17 refs.

Order from SLA \$1.10

62-14826

Trans. of [Nihon Kagaku Zasshi] (Japan) 1961, v. 82,  
no. 9, p. 1276-1279.

DESCRIPTORS: \*Metalorganic compounds, \*Carbon  
compounds, Monoxides, \*Sodium compounds, \*Phenyl  
radicals, Bromides, Benzenes, Organic solvents,  
\*Magnesium compounds, Cobalt compounds, Chlorides.

The reaction of bromobenzene and metallic sodium was  
conducted in various solvents and carbon monoxide was  
released in its reaction system. Depending on the basic-  
ity of the solvent and reaction temperatures, radical  
(Chemistry--Organic, TT, v. 9, no. 4) (over)

I. Ryang, M.  
II. Miyamoto, E.  
III. Tsutsumi, S.

Office of Technical Services

62-18035

Okuda, Michio.

ULTRAVIOLET ABSORPTION SPECTRUM OF PYRIDINE ADSORBED ONTO THE SURFACE OF SILICA GEL. Rept. no. 4 of Spectroscopic Studies on Adsorption. [1962] 12p. 12 refs.  
Order from SLA \$1.40

62-18035

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82, no. 10, p. 1287-1290.

DESCRIPTORS: \*Pyridines, Molecules. \*Ultraviolet spectroscopy, Adsorption, Silica, \*Gels, Surface properties, \*Phase studies, Vapors, Liquids.

The ultraviolet absorption spectra of pyridine adsorbed from vapor-phase and from liquid-phase onto silica gel, were measured. The adsorption tablet method was used for the former, and the Nujol method, whereby the sample was blended with liquid paraffin, then (Chemistry--Physical, TT, v. 8, no. 10) (over)

I. Okuda, M.

II. Title: Spectroscopic...

Office of Technical Services

Hydrogenation of Carbon Monoxide in the Presence  
of Borides of Nickel, Cobalt, and Iron, by  
Hidenori Kurita, Rihun Tsutsumi.

JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXII,  
No 11, 1961, pp 1461-1463.

Dept of Interior  
TNY 857 No 446

Sci - Mat Mat/Mat

Jul 63

238,221

Total Mercury Content in Sea Water,  
by Kyoichi Hosohara, Hirobe Kozuma,  
6 pp.

JAPANESE, per, Journal of the Chemical  
Society of Japan, Pure Chemistry Section,  
Vol LXXXII, No 11, 1961, pp 1479-1480.  
9069379

AEC Tr-5467

Sci - Chem  
Dec 62

2. 360

Determination of Arsenic and Antimony in Meteorites  
by Neutron Activation, by Hiroshi Hamaguchi<sup>1</sup>,  
Toshio Nakai, et al, 13 pp.

JAPANESE, per, Nihon Kagaku Zasshi, Vol LXXXII,  
No 11, 1961, pp 1485-1489. 9208804

AEC-1P-Tr-1015

Sci - Nucl Sci

Jul 63

235,673

Higuchi, Izumi, Ushigi, Yataroo, and Suzuki, Reika.  
SORPTION AND DESORPTION EQUILIBRIUM OF  
VAPORS ON POROUS VYCOR GLASS. [1963] [22p]  
(foreign text included) 13refs  
Order from SLA \$2.60

TT-63-20713

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 12, p. 1620-1624. (Abstract available)

DESCRIPTORS: \*Glass, Porosity, \*Vapors, Sorption,  
Silicon compounds, Dioxides, Structural properties,  
Chemical equilibrium, Hysteresis.

Isothermal sorption and desorption curves were  
measured (plotted) for benzene, methanol and water  
at 0° C and for oxygen at -192° C on porous Vycor  
glass. The theoretical isothermal curves for capillary  
condensation on the sorbent, which is composed of  
densely packed spheres of equal radius, were found to  
(Materials--Ceramics, TT, v. 11, no. 4) (over)

TT-63-20713

1. Title: Vycor glass
2. Title: Desorption
- I. Higuchi, I.
- II. Ushigi, Y.
- III. Suzuki, R.

Office of Technical Services

62-18037

Kawano, Kentaro and Odo, Keijiro.  
SYNTHESIS OF GUANYL-o-ALKYLISOUREA SALTS  
AND THEIR REACTIONS. Rept. no. 1 on Guanyl-o-  
alkylisoureas. [1962] 15p. 7 refs.  
Order from SLA \$1.60

62-18037

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 12, p. 1672-1675.

DESCRIPTORS: Synthesis (Chemistry), \*Guanidines,  
\*Urethanes, \*Alkyl radicals, \*Chlorides, Cyanamides,  
Urea, Hydrochloric acid, Alcohols, Addition reactions.

Guanyl-o-alkylisourea hydrochlorides (R, CH<sub>3</sub> and  
C<sub>2</sub>H<sub>5</sub>) were newly synthesized by addition reaction of  
dicyandiamide and alcohol in the presence of dry hydro-  
chloric acid at room temperature. When conducted at  
a relatively high temperature in the presence of a con-  
centrated acid, this reaction proceeded further and  
guanylurea hydrochloride and [the corresponding] alkyl  
(Chemistry--Organic, TT, v. 10, no. 6) (over)

- I. Title: Guanyl-o-alkyl-  
isoureas
- I. Kawano, K.
- II. Odo, K.
- III. Title: Guanyl-o-alkyl-  
isoureas

Office of Technical Services

62-14962

Takimoto, Masayoshi.  
AFFINITY OF CYANAMIDE DERIVATIVES FOR ION-  
EXCHANGE RESINS. [1962] 15p. 12 refs.  
Order from SLA \$1.60 62-14962

Trans. of Nihon Kagaku Zasshi (Japan) 1961, v. 82,  
no. 12, p. 1702-1708.

DESCRIPTORS: \*Cyanamides, Molecular structure,  
Chromatographic analysis, \*Ion exchange resins.

The strength of affinity of a total of about thirty  
compounds, of cyanamide derivatives and resembling  
compounds, toward cation- and anion-exchange resins  
was measured by chromatography, and the relationship  
between this and the chemical structure and dissociation  
constant was studied. It was found as a result that the  
tendency of affinity of the respective compounds toward  
ion-exchange resins was more or less regular, based on  
the affinity of their constituent radicals; that the affinity  
(Chemistry--Analytical, TT, v. 9, no. 4) (over)

I. Takimoto, M.

Office of Technical Services

J-1228/62

Charge Transfer Absorption Bands of Molecular  
Complexes of Chloronail With Naphthlene, Phenanthrene  
and Anthracene Derivatives, by Kuboyama Akira, *21 RP*.

JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXIII, No 4,  
1962, pp 17-21.

\*JPRS/DC-8140  
6

Sci - Chem

Oct 62

63-14017

Mizumachi, Kunihiko.  
ANION EXCHANGE OF THE MERCURY (II) CHLORO  
COMPLEX. Rept. no. 1 [of] Anion Exchange Equilib-  
rium of Metal. [1963] 27p. (figs. omitt) 41 refs.  
Order from SLA \$2.60 63-14017

I. Mizumachi, K.  
II. Title: Anion...

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83,  
no. 1, p. 61-67.

DESCRIPTORS: \*Complex compounds, \*Mercury com-  
pounds, Lithium compounds, Chlorides, Hydro-  
chloric acid, \*Ion exchange, Chemical equilibrium,  
Methyl radicals, Butyl radicals, Ketones.

Exchange equilibria of various metal anions in a  
mixture of hydrochloric acid-lithium chloride solutions  
were measured at 25°C. Equations were derived for  
calculating the anion exchange equilibrium constants,  
various equilibrium constants in the solution, and ratios  
(Chemistry--Inorganic, TT, v. 10, no. 7) (over)

Office of Technical Services

Mizumachi, Kunihiko.  
ANION EXCHANGE OF COBALT (II) COPPER (II),  
AND ZINC (II) CHLORO COMPLEXES. Rept. no. 2  
[of Anion Exchange Equilibrium of Metal. [1963] 24p.  
figs. omitted) 25 refs.  
Order from SLA \$2.60

63-14019

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83,  
no. 1, p. 67-72.

DESCRIPTORS: \*Complex compounds, \*Cobalt com-  
pounds, \*Copper compounds, \*Zinc compounds,  
Mercury compounds, Lithium compounds, \*Chlorides,  
Hydrochloric acid, \*Ion exchange, Chemical  
equilibrium.

The distribution coefficients of cobalt (II), copper (II)  
and zinc (II) between a hydrochloric acid-lithium  
chloride mixture and anion exchange resins were  
measured at 25°C. The distribution coefficient is  
(Chemistry--Inorganic, TT, v. 10, no. 7) (over:)

63-14019

I. Mizumachi, K.  
II. Title: Anion ...

Office of Technical Services

Mizumachi, Kunihiko.  
ANION EXCHANGE OF THE CHLORO COMPLEX  
IONS OF TELLURIUM (IV). Rept. no. 3 [of Anion  
Exchange Equilibrium of Metal. [1963] 16p. (figs.  
omitted) 11 refs.  
Order from SLA \$1.60

63-14018

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83,  
no. 1, p. 73-78.

DESCRIPTORS: \*Complex compounds, \*Tellurium  
compounds, Lithium compounds, Chlorides, Hydro-  
chloric acid, \*Ion exchange, Chemical equilibrium,  
Acid-base equilibrium.

The distribution coefficient of tellurium (IV) from a  
hydrochloric acid-lithium chloride mixture with anion  
exchange resins was measured at 25°C. The distribu-  
tion coefficient has a larger value generally when the  
(Chemistry--Inorganic, TT, v. 10, no. 7) (over)

63-14018

I. Mizumachi, K.  
II. Title: Anion...

Office of Technical Services

Optical Division of DL Glutamic Acid and its  
Derivatives and Its Salts in Accordance with  
the Inoculation Method. Report No 1. The  
Racemic Bodies of DL-Glutamic Acid and its  
Salts and Division by the Inoculation Method,  
by T. Akashi.

JAPANESE, per, Nihon Kagaku Zasshi, Vol 83,  
No 4, 1962, pp 417-421.  
SLA TT-66-10199

Sci-Chem  
Aug 66

308,788

Optical Division of DL Glutamic Acid and its  
Derivatives and its Salts in Accordance with  
the Inoculation Method. Report 2. Division  
of DL-Glutamic Acid Hydrate by Inoculation  
Method, by T. Akashi.

JAPANESE, per, Nihon Kagaku Zasshi, Vol 83,  
No 4, 1962, pp 421-425.  
SLA TT-66-10200

Sci-Chem  
Aug 66

308,782

Akashi, Takekazu.  
DL-GLUTAMIC ACID IN A NEW CRYSTAL FORM.  
Rept. 3 of Optical Resolution of DL-Glutamic Acid, its  
Derivatives and their Salts by the Inoculation Method.  
[1962] 16p. 5 refs.  
Order from SLA \$1. 60

62-20450

Trans. of [Nihon Kagaku Zasshi] (Japan) 1962, v. 83,  
p. 528-532.

DESCRIPTORS: \*Crystal growth, \*Glutamic acid,  
Crystals, Crystal structure, \*Optical analysis, X-ray  
diffraction analysis, Molecular isomerism, Racemiza-  
tion, Crystallization, Crystal mixers, Chemical  
compounds, Salts.

(See also: 62-20449)

(Chemistry--Organic, TT, v. 10, no. 1)

62-20450

- I. Akashi, T.
- II. Title: Optical ...

Office of Technical Services

Akashi, Takekazu.  
OPTICAL RESOLUTION OF DL-GLUTAMIC ACID, ITS  
DERIVATIVES AND THEIR SALTS BY THE INOCULA-  
TION METHOD, IV. [1962] 17p. 5 refs.  
Order from SLA \$1.60

62-20449

Trans. of [Nihon Kagaku Zasshi] (Japan) 1962, v. 38,  
p. 532-536.

DESCRIPTORS: \*Optical analysis, \*Glutamic acid,  
Chemical compounds, Salts, Solubility, Molecular  
isomerism, Racemization, Crystal mixers, Crystal  
structures, \*Crystal growth.

The solubilities of active isomers and racemic mixtures  
of pyroglutamic acid and its salts, N-acetylglutamic  
acid and glutamic acid- $\gamma$ -methyl ester, which are  
derivatives of glutamic acid were measured in order to  
ascertain the composition of the racemic acids. At the  
(Chemistry--Organic, TT, v. 10, no. 1) (over)

62-20449

I. Akashi, T.

Office of Technical Services

The Relationship Between the Crystal Structure of  
Various Carbides of Thorium, Uranium and Rare  
Earth Elements and the Products Obtained When These  
Carbides Are Hydrolysed, by I. Kanno, S. Kachi, 10 pp.

JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXIII,  
1962, pp 565-569.

Sci-Mat & Mat  
Jan 64

AEC-MU-tr-1067(Draft)  
Depl. Information  
T/17 E 57  
No 54 248,329

63-10915

Iwanami, Yasuo.  
REACTION OF DIETHYL ACETYLENEDICARBOXYL-  
ATE WITH 2,3- AND 1,8- NAPHTHYLENEDIAMINE.  
Rept. 10 of Reactions of Acetylene Carboxylates with  
Amines. [1962] 11p. 23 refs.  
Order from SLA \$1.60

63-10915

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83,  
no. 5, p. 597-600.

DESCRIPTORS: \*Ethyl radicals, \*Acetylenes, Car-  
boxylic acids, \*Esters, \*Naphthalenes, \*Amines,  
Chemical reactions, Infrared spectroscopy

(Chemistry--Organic, TT, v. 10. no. 1)

I. Iwanami, Y.  
II. Title: Reactions...

Office of Technical Services

Tomonari, Akihisa.  
AN IMPROVEMENT ON THE METHOD FOR  
SPECTROPHOTOMETRIC DETERMINATION OF  
TRACES OF CHLORIDE ION. [1963] 7p. (figs. tables  
omitted) 6 refs.  
Order from SLA \$1.10

63-18809

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83,  
no. 6, p. 693-695.

DESCRIPTORS: \*Chlorides, Ions, Chemical analysis,  
\*Spectroscopy, \*Colorimetric analysis, Calibration,  
\*Iron compounds, \*Perchlorates, \*Mercury compounds,  
\*Thiocyanates, Nitrates.

An iron perchlorate solution and a mercuric thiocya-  
nate solution were added to a specimen solution and the  
chloride ion was determined by measuring the absorb-  
ency of an orange-colored aqueous solution at  
(Chemistry--Analytical, TT, v. 10, no. 12) (over)

63-18809

I. Tomonari, A.

Office of Technical Services

Tomonari, Akihisa.  
SPECTROPHOTOMETRIC DETERMINATION OF  
TRACES OF CHLORIDE IN LARGE AMOUNTS OF  
BROMIDE. [1963] 10p. (figs. tables omitted) 7 refs.  
Order from SLA \$1.10 63-18715

Trans. of Nihon Kagaku Zasshi (Japan) [1962] v. 83,  
no. 6, p. 696-698.

DESCRIPTORS: \*Chlorides, \*Bromides, Oxidation,  
Spectrophotometers, Quantitative analysis.

A method for the determination of traces of chloride  
in large amounts of bromide was studied. An aqueous  
solution containing a fixed quantity of bromide ion was  
oxidized to potassium permanganate at the time when  
it was heated in nitric acidity. Conditions for the  
quantitative oxidation of bromide ion to bromine were  
sought. After removing bromine by heating the chloride  
(Chemistry--Analytical, TT, v. 10, no. 11) (over)

63-18715

I. Tomonari, A.

Office of Technical Services

Katsumura, Tatsuo.  
OPPENAUER OXIDATION OF ALCOHOLS, USING  
DIBUTYLDIISOPROPOXYTIN. [Rept.] 3 of Studies on  
Organotin Compounds. 1962 [9]p. 17 refs.  
Order from SLA \$1.10 62-18827

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83  
[no. 6] p. 729-731.

DESCRIPTORS: \*Metalorganic compounds, \*Tin com-  
pounds, \*Alcohols, Benzyl radicals, Furfuryl alcohols,  
Cholesterol, \*Oxidation, Ketones, Alkoxy radicals.

It has been found that primary alcohols such as benzyl  
alcohol and anisyl alcohol undergo Oppenauer oxidation  
in the presence of dibutyldiisopropoxytin (I) and  
p-benzoquinone, forming aldehydes or ketones, and that  
xanthohydrol undergoes the same reaction in the pre-  
sence of compound I and cyclohexanone. The formation  
(Chemistry--Organic, TT, v. 9, no. 11) (over)

62-18827

- I. Title: Oppenauer reaction
- I. Katsumura, T.
- II. Title: Studies ...

Office of Technical Services

Vibrational Spectra of Ethyl Alcohol and its  
Deuterium Analogue  $\text{CH}_3\text{CH}_2\text{OD}$ , by C. Tanaka.  
JAPANESE, per, Nihon Kagaku Zasshi, Vol 83,  
No 7, 1962, pp 792-798.  
NII Ref: 8732 (1307)

Sci-Chem  
Jan 69

373,611

Kunori, Masao  
REACTION OF 1-METHYL INDOLE WITH BRO-  
MINE. Report 5 of Studies in Indole Links. [1962] 12p.  
13 refs.

Order from SLA \$1.60

63-10321

Trans. of [Nihon] Kagaku Zasshi (Japan) 1962, v. 83,  
p. 836-838.

DESCRIPTORS: Chemical reactions, \*Indoles, \*Methyl  
radicals, \*Bromine, Catalysts, Reduction, Absorption  
spectrum, Synthesis (Chemistry), Complex compounds.

(Chemistry--Organic, TT, v. 9, no. 10)

63-10321

I. Kunori, M.  
II. Title: Studies ...

Office of Technical Services

Kunori, Masao.  
REACTION OF 1-METHYL-INDOLE WITH SULFURYL  
CHLORIDE OR BROMINE. Rept. 6 of Studies in  
Indole Links. [1962] 10p. 6 refs.  
Order from SLA \$1.10

62-18930

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83  
[no. 7] p. 839-841.

DESCRIPTORS: \*Indoles, Methyl radicals, Cyano  
radicals, Chemical bonds, Chemical reactions,  
Catalysts, Sulfonyl radicals, Chlorides, Bromides.

(Chemistry--Organic, TT, v. 10, no. 1)

62-18930

I. Kunori, M.  
II. Title: Studies ...

Office of Technical Services

Suzuki, S., Saito, S., and Inoue, Y.  
HOT ATOM CHEMISTRY OF  $As^{76}$  BY THE USE OF  
ZIRCONIUM PHENYLARSONATE. [1963] [6p] (figs  
omitted) 8 refs  
Order from SLA \$1.10

TT-64-14803

Condensed trans. of [Nihon Kagaku Zasshi] (Japan) 1963,  
v. 83, no. 9, p. 1023-1026.

(Chemistry--Physical, TT, v. 11, no. 11)

TT-64-14808

I. Suzuki, S.  
II. Saito, S.  
III. Inoue, Y.

Office of Technical Services

NO 10, 1964 pp 1000  
AEC-ANL-IT-71

Sci-Nucl Sci  
Oct 64

267,860

63-22479

Suga, K. and Watanabe, S.  
REACTION OF SOME ALIPHATIC UNSATURATED  
HYDROCARBONS WITH FORMALDEHYDE. [1963] 24p  
Order from K-H \$24.00 K-H 12557 a

Trans. of Nihon Kagaku Zasshi (Japan) 1962, v. 83,  
no. 10, p. 1142-1147.

DESCRIPTORS: \*Formaldehyde, \*Aliphatic compounds,  
Hydrocarbons, Chemical reactions.

- I. Suga, K.
- II. Watanabe, S.
- III. K-H-12557-a
- IV. Kresge-Hooker Science  
Library Associates,  
Detroit, Mich.

(Chemistry--Organic; TT, v. 10, no. 10).

Office of Technical Services

by of the Assoc.  
Carbon Black Suspended in a Homogeneous Media  
ium, by T. Kobayashi.

JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXIII,  
No 10, 1962, pp1158-1159.

ATS JJ-3927

Sci-Chem  
Dec 63

244,859

Neutron Shielding of Metals in Thermal Neutron  
Activation, by Y. Kamemoto, Y. Onoda.

JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXIII,  
1962, pp 1164-1167.

\*AEC

Sci - Nucl Sci  
Oct 63

63-16381

Oda, Ryohel and Yamamoto, Keiji.  
FORMYLATION OF AROMATIC COMPOUNDS BY  
THE 1 : 2 ADDUCT OF DIMETHYL-FORMAMIDE  
WITH CYANURIC CHLORIDE. [1963] 8p. 10 refs.  
Order from SLA \$1.10 63-16381

Trans. of [Nihon] Kagaku Zasshi (Japan) 1962, v. 83,  
no. 12, p. 1292-1294.

DESCRIPTORS: \*Formamides, Methyl radicals,  
\*Cyanogen chlorides, \*Benzene derivatives, Amines,  
\*Benzaldehydes, \*Pyrolles, \*Aldehydes, Naphthyl  
radicals, \*Indoles, \*Thiophenes, \*Anilines, Formyl  
radicals.

As one of the numerous adducts formed by dime-  
thylformamide, Gold (Angew. Chem. 72: 956, 1960)  
has obtained its 1 : 2 adduct with cyanuric chloride. It  
was discovered that this adduct was effective when used  
(Chemistry--Organic, IT, v. 10, no. 7) (over)

1. Title: Adducts
  2. Title: Cyanuric chloride
  3. Title: Dimethyl  
formamide
  4. Title: Formylation
- I. Oda, R.  
II. Yamamoto, K.

Office of Technical Services

TT-64-12944

Iwasa, Y. and Imoto, T.  
THE EQUILIBRIUM BETWEEN  $\alpha$ -POLYOXYMETHYL-  
ENE AND FORMALDEHYDE. [1964] 10p  
Order from K-H \$6.00      K-H-12792-a

Trans. of Nihon Kagaku Zasshi (Japan) 1963, v. 84,  
no. 1, p. 29-31.

I. Iwasa, Y.  
II. Imoto, T.  
III. K-H-12792-a  
IV. Kresge-Hooker Science  
Library Associates,  
Detroit, Mich.

(Chemistry--Physical, TT, v. 12, no. 1)

Office of Technical Services

Iwasa, Y. and Imoto, T.  
THE REVERSIBLE THERMAL DEPOLYMERIZATION  
OF  $\alpha$ -POLYOXYMETHYLENE. [1964] 13p  
Order from K-H \$7.00      K-H-12792-b

Trans. of Nihon Kagaku Zasshi (Japan) 1963, v. 84,  
no. 1, p. 31-34.

(Chemistry--Organic, TT, v. 12, no. 1)

TT-64-12891

I. Iwasa, Y.  
II. Imoto, T.  
III. K-H-12792-b  
IV. Kresge-Hooker Science  
Library Associates,  
Detroit, Mich.

Office of Technical Services

63-22480

Murakami, Masuo, Kang, Jeng W., Itatani, Hiroshi,  
Seno, Saburo, and Matzusato, Nariuki.  
HOMOGENEOUS HYDROGENATION OF UNSATURATED  
LINKAGES IN ORGANIC COBALT (II OR III) COM-  
PLEXES. [1963] 13p  
Order from K-H \$13.00 K-H 12792 c

Trans. of Nihon Kagaku Zasshi (Japan) 1963, v. 84,  
p. 48-50.

DESCRIPTORS: \*Metalorganic compounds, Complex  
compounds, \*Cobalt compounds, \*Hydrogenation.

- I. Murakami, M.
- II. Kang, J. W.
- III. Itatani, H.
- IV. Seno, S.
- V. Matzusato, N.
- VI. K-H-12792-c
- VII. Kresge-Hooker Science  
Library Associates,  
Detroit, Mich.

(Chemistry--Organic, TT, v. 10, no. 10)

Imoto, Tetsuya, Harano, Toshiro, and Nishi, Yasuji.  
REDUCTION OF ZINC OXIDE BY HYDROGEN. (1963)  
9p (figs refs omitted) 2refs  
Order from SLA \$1.10 TT-63-20834

Trans. of Nihon Kagaku Zasshi (Japan) 1963, v. 84,  
no. 2 [p. 115-119]. (Abstract available)

DESCRIPTORS: \*Zinc compounds, Oxides, Reduction  
(Chemistry), Hydrogen, Reaction kinetics.

Results are given of experiments made on zinc oxide  
reducing reaction by hydrogen. The experiments were  
conducted by static and circulative methods with a tem-  
perature range arranged to be from 617 to 762°C and  
pressure range from 10 to 85 mmHg. In the static  
method, reaction analysis was complicated by the retro-  
gressing and retarding actions of the produced steam.  
Meanwhile, in the circulative method, the reaction  
proceeded independently of the amount of zinc oxide and  
(Chemistry--Physical, TT, v. 11, no. 11) (over)

TT-63-20834

I. Imoto, T.  
II. Harano, T.  
III. Nishi, Y.

Office of Technical Services

Effects of Basic Groups of the Catalytic  
Reduction of Phenylbenzyl Ether, by N. Oshima.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 84, No 2,  
1963, pp 174-176.  
NTC-71-12404-07C

Nov 71

Catalytic Reduction of Unsaturated Bonds With  
Cyanocobalt Complex Ions and Side Reactions,  
by M. Murakami.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 84, No 8,  
1963, pp 669-673.  
HTC-71-12403-07C

Nov 71

Electron Spin Resonance Study of Radical Pairs  
Trapped in Irradiated Single Crystals of  
Dimethylglyoxime at Liquid-Nitrogen Temperature,  
by Yukio Kurita,  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 85, 1964,  
pp 833-42.  
AEC NSJ-tr-76

Sci - Chem  
Oct 67

342,314

Solvent Extraction of Beryllium, Copper,  
Nickel, Cobalt and Zinc as Dibenzoylmethane  
Complexes, by Tsunenobu Shigematsu.  
JAPANESE, per, Nippon Kagaku Zasshi,  
Vol LXXXIV, 1963, pp 131-134. 9231783  
AEC-ORNL-Tr-940

Sci + M/M  
Mar 46

296,473

Solvent Extraction of Scandium, Its Separation From  
Yttrium and Rare-Earth Elements, by T. Shigematsu,  
M. Tabushi, et al, 12 pp.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXIV, 1963,  
pp 263-267. 9219761

AEC-Tr-5239

Sci-Mat R. Mat.  
Mar 64

251,252

Dynamic Viscoelastic Properties of Asphalt, by  
S. Sakajiri,  
JAPANESE, per, Nihon Kagaku Zasshi, ~~VIII~~ Vol  
LXXXIV, No 5, 1963, pp 384-392.  
ATS 86R78J

Sept 66

311,239

Electromigration Separation of Lithium  
Isotopes Using Ion Exchange Membrane, by  
Hidetake KAKIMURA, Makoto OKAMOTO.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 84,  
1963, pp 402-484. 9231128  
AEC-Tr-6694

*PO 419-421 - K-H-13147*

Sci/Nuclear Sci  
May 66

299,519

Theory of Isotope Separation by Two-Phase  
Distribution, by Hidetake Kakihana, Kimiko Kurisu,  
11 pp.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol LXXXIV,  
1963, pp 470-473. 9226157  
ABC-SC-T-64-1617

Sci-Nucl Sci  
Jan 65

270,617

Visible and Ultraviolet Absorption Spectra  
of  $(\text{Fe}(\text{III})(\text{CN})_5\text{X})$  Type Complexes, by  
N. Matsuoka, Y. Shimura, 7 pp.  
JAPANESE, per, Nihon Kagaku Zasshi,  
Vol LXXXIV, No 6, 1963, pp 496-499.  
ATS-31791J

Sci - Phys  
Sept 66

305,661

Radiolysis of Cobalt (III) Ethylenediamine-  
Triacetate in Aqueous Solution, by Matsuura, Hiro,  
Shinozuka, Nobuyoshi, et al. 25 pp.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 84, 1963  
pp 807-902.  
AEC LCRL-tr-1241

NIRO MATSUURA

Sci/Physics  
Apr 67

320,699

TT-64-22108

Shirai, T., Hamada, S., and Kobayashi, K.  
VISCOSITY AND MOLECULAR WEIGHT OF LIQUID  
SELENIUM. [Apr 64] 10p  
Order from ATS \$10.95      ATS-41R75]

Trans. of Nihon Kagaku Zasshi (Japan) 1963, v. 84,  
no. 12, p. 968-972.

- I. Shirai, T.
- II. Hamada, S.
- III. Kobayashi, K.
- IV. ATS-41R75]
- V. Associated Technical  
Services, Inc.,  
East Orange, N. J.

(Chemistry--Physical, TT, v. 12, no. 2)

Office of Technical Services

Studies on High Pressure Polymerization.  
Pt 8. High Pressure Copolymerization of  
Chloro-Ethylenes with Styrene, by H. Asai. 15 p.  
JAPANESE, per, Nihon Kagaku Zasshi, Vol 85,  
No 4, 1964, pp 252-255.  
SIA TT-66-10617

Sci-M&M  
Jul 66

306,105

Reaction of DPPH with Free Radicals formed  
by Photolysis of Azobisisobutyronitrile, by  
J.OSUGI.  
JAPANESE, per, Nihon Kagaku Zasshi, vol. 85 ,  
no. 5, 1964, pp. 307-313.  
NTC 70-17043-07E

June 1971

Reaction of Diethyldicarbonateacetylene  
With Guanidine and its Derivatives, by  
Y. Sasaki.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 85,  
No 10, 1964, pp 704-705.  
NTC-71-14820-07C

Feb 72

Electron Spin Resonance Study of Radical Pairs  
Trapped in Irradiated Single Crystals of  
Dimethylglycine at Liquid-Nitrogen Temperature,  
by Tokio KURITA, 33 pp.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 85,  
No 12, 1964, pp 833-842. F911248467  
ABC NSJ Tr-76

331,083

Sci - Materials  
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